UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN REGION

ADDRESS REPLY TO
REGIONAL FORESTER
AND REFER TO

FOREST SERVICE BUILDING
OGDEN, UTAH

May 3, 1960

Ogden Forest Service Employees:

Your personal copy of our regional yearbook, highlighting the major multiple-use activities for 1959, is attached.

As a Forest Service employee, you have a personal interest in Forest Service activities. You have contributed to the region's overall effort and may, therefore, take pride with me in the region's accomplishments.

Ours is the tremendously important responsibility of advancing, wherever and whenever possible, public understanding of multiple use as the most beneficial system of national forest management. We are pledged to do an increasingly better job of multiple-use forestry and to keep all the people informed of what we are doing.

I extend my personal thanks and appreciation for your effort and support in our important job.

Sincerely yours,

Floyd Iverson

FLOYD IVERSON
Regional Forester

Attachment

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The Multiple Use Story

The 1959 Yearbook
U. S. Forest Service
Intermountain Region

WHAT MULTIPLE USE OF THE NATIONAL FOREST RESOURCES MEANS TO YOU

Multiple use means different things to different people. This is natural because the pattern of use varies a great deal from place to place as the topography, vegetation, soils, and human needs vary. Then, too, each user group is inclined to interpret multiple use in a way that puts its particular interest in the most favorable position.

The objective of multiple-use management on the national forests is to get the optimum combination of uses and services for the benefit of the American people. It means the harmonious coordination of the different uses on a large area, such as a ranger district or a national forest. It does not mean that all the uses of the forests will occur on the same acre.

It is the purpose of this year's report to describe in word and picture what the Forest Service means by multiple use, and to show you how it is being applied in the management of the national forests.

Your interest and support are valued and appreciated, for only through understanding and cooperation can the multiple-use principle gain complete fulfillment and accomplish its purpose of the "greatest good of the greatest number in the long run."

Floyd Iverson

FLOYD IVERSON
Regional Forester

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FS Intermountain Region
Ogden, Utah
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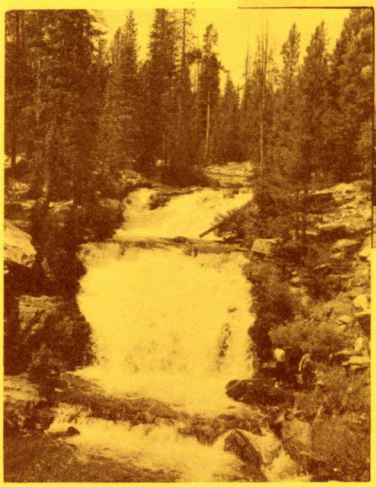
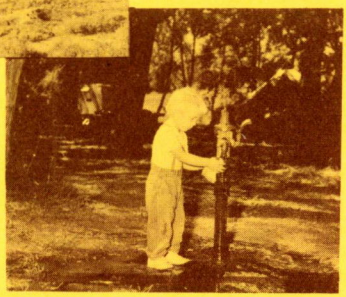
Water



Water from the national forests—our most vital resource. (Wasatch National Forest)



Water has a thousand and one uses. (Cache National Forest)

Contour trenches were constructed on 1,500 acres above Boise, Idaho following severe floods in 1959. (Boise National Forest)

OBJECTIVES OF WATERSHED MANAGEMENT

The management objectives of the Forest Service in relation to the soil and water resources on national forest lands are to:

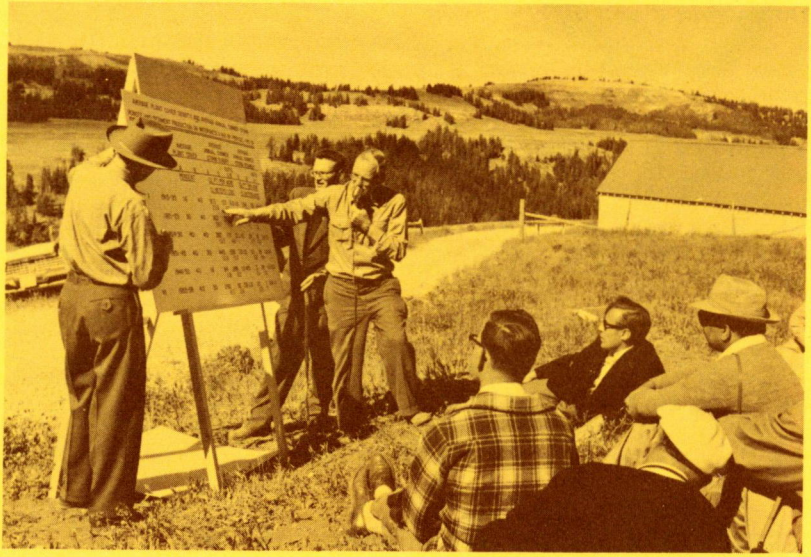
1. Maintain stable soil, water and vegetal conditions on mountain watershed lands.
2. Produce high quality water.
3. Control rainstorm floods.
4. Increase water yield.

WATER IN YOUR LIFE

More than 80 percent of the water in the Intermountain States originates on the national forests. Watersheds—"surface areas drained by streams and their tributaries" — perform the vital function of converting intermittent precipitation into perennial stream flow — a function safeguarded by your Forest Service.

The Forest Service is dedicted to protecting the watershed by preventing or counteracting erosion. When vegetation becomes depleted through fire or overgrazing, for example, rain water floods over the surface bringing debris and destruction down upon the valleys.

To prevent this, the Forest Service restores the land by planting new vegetation and may contour-trench steep eroded slopes to capture rainstorm run-off allowing it to seep into the earth as nature intended.



Forestry experts from 30 foreign nations studied watershed management during a tour through the Intermountain Region sponsored by the Food and Agriculture Organization of the United Nations. Here Perry Plummer, of the Intermountain Forest and Range Experiment Station, discusses the relationship of plant cover to floods. (Manti-LaSal National Forest)

SOIL AND WATER IMPROVEMENTS

Restoration of damaged watersheds on the regions' national forests gained impetus during 1959. Land treatment to prevent surface flooding from summer rainstorms and to stabilize soil on flood source areas was conducted on 12 projects in four states. Treatment included 170 miles of contour trenches and 2,000 acres of seeding.

Thus, four communities will be protected from summer floods, and sediment rates will be reduced in eight storage reservoirs. Seeding was also done on seven areas made bare by forest and range fires.

Small Watershed Projects Under Public Law 566. Two important P.L. 566 projects began in Utah last year. Restoration was partially completed on (damaged) portions of the American Fork-Dry Creek and North Fork of Ogden River watersheds. The Forest Service is cooperating with the sponsors and other agencies in planning five additional projects.

Emergency Flood Control Program—Boise National Forest. On August 3 and 4, 1959, a range fire burned about 9,000 acres of private, state and federal lands near Boise, Idaho. Shortly after, three severe rainstorms flooded and heavily damaged Boise residential property and adjacent farms. A cooperative effort by private landowners, Boise City, Ada County, the State of Idaho, Bureau of Land Management, Soil Conservation Service, and Forest Service, resulted in a watershed rehabilitation project under provisions of the USDA Emergency Flood Control Act. The work included 2,500 acres of reseeding and 1,500 acres of contour-trenching to stabilize the soil and prevent rainstorm runoff.

Water Resources Evaluation. During 1959, streamgaging stations were installed in Idaho on the West Branch of the Weiser River and Tailholt Creek, Payette National Forest. Both gages are part of plans to determine the effect of logging on streamflow, water yield, and sedimentation. The Tailholt project is in cooperation with the Intermountain Forest and Range Experiment Station.

Collection of streamflow precipitation and soil moisture data was continued on the Sheep Creek study, Fishlake National Forest, which is designed to determine the effect on water yield of changing aspen cover to grasses and forbs. Strip cutting of aspen probably will begin next year.

NORTH FORK
PLEASANT CREEK
NATIONAL FOREST LAND TERRACED
AND PLANTED TO GRASSES IN 1956
AND 1957. THIS WORK WAS
NECESSARY TO RESTORE VEGETATIVE
COVER DEPLETED BY GRAZING
ANIMALS AND TO RETARD SURFACE
RUNOFF THAT PRODUCED DEVASTATING
FLOODS IN THE COMMUNITY BELOW
MANTI-LASAL NATIONAL FOREST

Contour trenches catch overland flow permitting it to seep harmlessly into the earth. (Manti-LaSal National Forest)

Timber

Lumber from the national forests has innumerable uses. Here a crane loads pulpwood for shipment to paper mills in Wisconsin. (Targhee National Forest)

OBJECTIVES OF TIMBER MANAGEMENT

The objective of commercial forest land management on the national forests is to obtain continuous production of timber at as high a level as economically practicable, giving consideration to both quantity and quality, in accordance with the principles of multiple use.

TIMBER IN YOUR LIFE

A steady flow of timber under sustained yield multiple use management provides a substantial amount of the raw material for the intermountain timbering, lumber, and forest products industries.

The 18 national forests of the Intermountain Region have eight million acres of commercial timberland containing 70 billion board feet of growing sawtimber. The objective by the year 2000 A.D. is to attain an annual cut of 209 board feet per acre of all timber products. The present allowable cut is 63 board feet per acre.

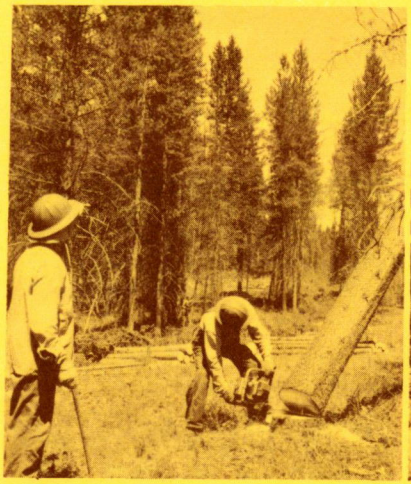
Wood and its derivatives have more than 4,500 uses. From toothpicks to telephone poles, your national forests serve you.

THE BIG TIMBER BUSINESS YEAR

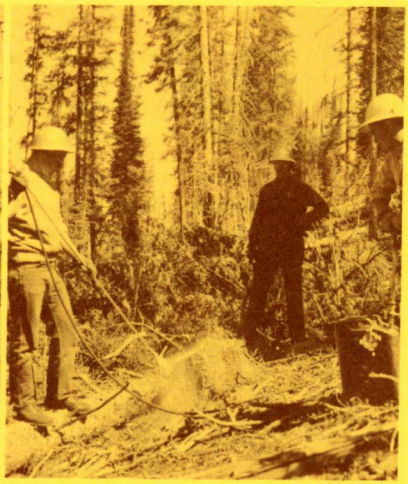
Several timber records were set during 1959 in the region. The timber cut for 1959 was 338 million board feet, an increase of 22 percent over the previous year's harvest. Timber sales during F.Y. 1959 brought slightly over 2 million dollars into the U.S. Treasury.

A Record Tree Planting of 1,683 acres was performed in an operation destined for success, according to past efforts. More than 90 percent of the trees planted throughout the region in recent years have survived.

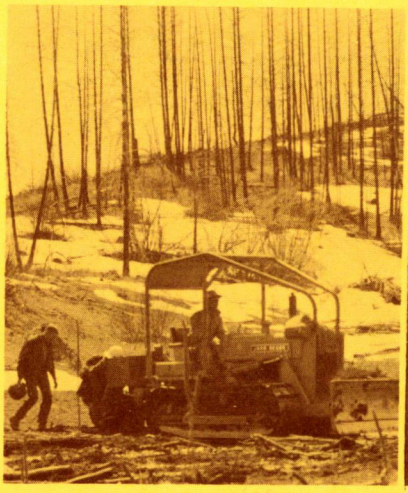
The Largest Timber Sale in the region's history went to Brown's Tie and Lumber Company of McCall, Idaho, last fall. Within the next six years about 60 million board feet of timber will be logged from the Zena Creek drainage on the Payette National Forest. The sale is doubly significant since it focuses on the development and testing of new logging equipment methods for economic harvesting on steep erosible slopes.



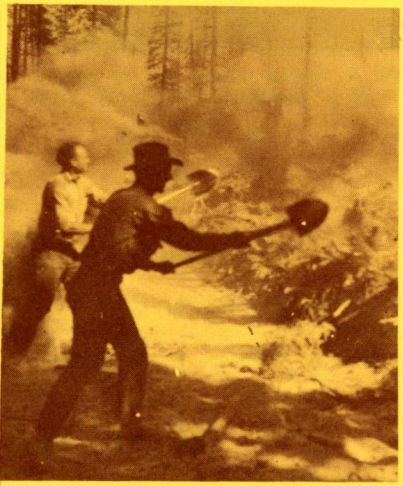
Timber from the Intermountain Region brought 2 million dollars into the public coffers, 25 percent of which was returned to the states and counties. (Targhee National Forest)



Trees are sprayed for Engelmann Spruce beetle control. (Uinta National Forest)



More than 90 percent of all trees planted in the region survive. The year brought a record planting on 1,683 acres. (Payette National Forest)



New scientific techniques are a vital asset in combatting forest fires, but lots of back muscle and shovel work is still essential. (Payette National Forest)

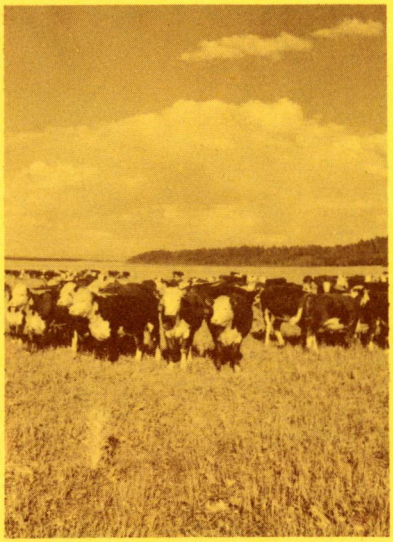
Timber Surveys were conducted on 1,184,000 acres to develop improved timber management plans. During the year the Forest Service built 148 miles of timber access roads. Timber purchasers built 240 miles.

Major Control Projects were on Engelmann spruce, Black Hills, and mountain pine beetles. An estimated 20 million board feet of insect-infested and insect-killed timber were salvaged in 1959. During the year 155,200 infected trees, stumps and tops were treated on 166,000 acres. The cost of treatment was over a million dollars.

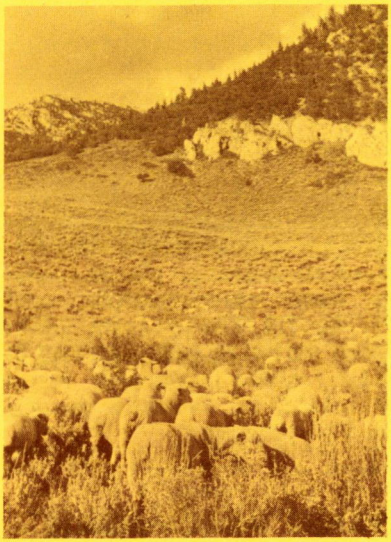
Specialized Planting Equipment was developed last year. The Holt contour trencher was a significant innovation in contour trenching and planting site preparation. Two reversible disks trail a light tractor and flare dirt downhill leaving a clean upper slope.

Other 1959 developments include a dozer with twelve disks in "V" formation, especially valuable in scarification of land for natural regeneration; an angle and tilt dozer for planting site work and contour trenching on steep slopes; and a small tractor with a 28-inch conical disk for cutting hillside furrows in line with the upper tractor track to furnish a level trail for operation of the tractor on steep slopes.

Forage



During 1959, 297,654 cattle and 1,291,983 sheep obtained summer forage from the region's national forests. (Near Targhee National Forest)



Sheep on the Snake Range in Nevada. (Humboldt National Forest)

OBJECTIVES OF RANGE MANAGEMENT

The Forest Service objective in managing the rangelands on the national forests is to put them to productive use with livestock and game grazing under a management plan which is in harmony with a sound multiple use program.

THE FORESTS AND GRAZING

Forage is an important resource on the national forests of the Intermountain Region. During 1959, 297,654 cattle and 1,291,983 sheep grazed the rangelands. Grazing receipts of slightly over one million dollars were paid into the U.S. Treasury for F. Y. 1959.

Livestock permittees and the Forest Service are working together to improve forage and maintain healthy watersheds on the national forests. The Forest Service analyzes the rangeland to determine its health and productivity and the relationship of domestic livestock use to other national forest activities. Following this, a management plan is developed to provide for the proper use of the forage crop.

Rangeland which has been damaged through overuse is restored through revegetation, control of undesirable plants, fencing, water developments, and gully control. The programs often require partial or complete rest of the land under treatment. Areas not suitable for livestock use are closed to grazing.

The Forest Service sprayed 30,000 acres of sagebrush and converted large areas to grass. (Bridger National Forest)

RANGE IMPROVEMENTS

Last year sagebrush was treated on about 30,000 acres by aerial spraying. Much of the spraying is performed with 2, 4-D butyl ester which provides excellent control of sagebrush. Several new types of range improvement equipment were field tested and put into use.

Additional accomplishments for F. Y. 1959 were:

119 miles of range and reseeding fences constructed.

About 10,000 acres were planted to grass.

51 stock watering developments constructed.

Ranger Jack Large and Stockman Wallace Ott study forage increase under scientific Forest Service management. (Dixie National Forest)

Left to right: Ranger M. H. Wright and members of the Pleasant Grove Association Advisory Board, Arnold Hoo[illegible]y, Roy Thorne, and Leonard Walker observe managed rangeland (Uinta National Forest)

Members of the Uinta National Forest Advisory Council and foresters note benefits of rest-rotation grazing on part of the Diamond Fork Cattle Allotment. Left to right: Staff Forester Clark Anderson, Ranger Merrill Nielson, Dr. Vasco Tanner, Mrs. Ruby Christensen, Regional Forester Floyd Iverson, Mrs. Stella Oaks, Ivan Anderson, Jack Allshouse, Eldon Sherwood, Selby Dixon (Uinta National Forest)

A forest ranger and members of the Spanish Fork Advisory Board Livestock Association inspect newly-constructed sub-unit management fencing. Left to right: Jones Williams, H. L. Larsen, William C. Creer, Ranger Merrill Nielson. (Uinta National Forest)

Wildlife

Intermountain Region National Forests furnish some of the nation's finest hunting. (Teton National Forest)

OBJECTIVES OF WILDLIFE MANAGEMENT

The national forest wildlife management objective is to manage habitat so that wildlife populations, including non-game species, will be maintained at a level consistent with the requirements for other services of the land and in accordance with these recreational and related public uses and values.

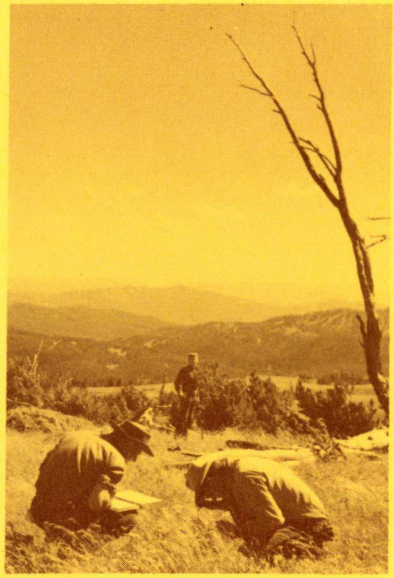
THE IMPORTANCE OF WILDLIFE MANAGEMENT

The national forests are public hunting and fishing grounds, and the Forest Service closely cooperates with state fish and game departments in wildlife management. Primarily, the Forest Service manages wildlife habitat, the protection and improvement of which is a continual job.

Without food and cover, of course, fish, game birds, fur bearers, and big game could not live. Wildlife in the region obtains much of its sustenance and protection from the national forest. A balance between game numbers and game range is vital in wildlife management.

Some of the more important game includes deer, elk, moose, antelope, mountain sheep and goat. Common game fishes are

Fishing is an ageless sport. (Wasatch National Forest)



Recording data on an elk game range area, Big Game Ridge. (Teton National Forest)

eastern brook, brown, rainbow, and cutthroat trout; grayling and whitefish. Each summer, Idaho forest waters provide the scene for spawning activities of chinook and blueback (sockeye) salmon, and steelhead trout migrating from as far as the Pacific Ocean.

Hunting and Fishing Visits. The region received 550,000 hunting visits and 1,500,000 fishing visits. Total hunter and fisherman visits exceeded 1958's by about 136,000.

WILDLIFE MANAGEMENT ACCOMPLISHMENTS

Habitat management accomplishments during 1959 were as follows:

Big game range revegetated	2500 acres
Game range habitat improved*	1000 acres
Stream bottoms protected by fencing	91 acres
Study enclosures constructed	9 acres
Streambank stabilization	2 miles
Fishing lake improvement*	87 acres
Permanent condition and trend study transects	41
Production and utilization study transect	86

*Work performed by states on national forest lands.

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Recreation

The U.S. Forest Service Operation Outdoors calls for widespread construction and improvement of campgrounds and picnic areas to meet the accelerating recreation demand. (Targhee National Forest)

OBJECTIVES OF RECREATION MANAGEMENT

The Forest Service management goal for the national forests is to serve present and future public outdoor recreation needs; to prevent unsanitary conditions, pollution, and forest fires resulting from recreation use; to take all measures necessary within reason to assure the safety of users; to coordinate recreation and other types of resource and land uses to enhance and protect existing and future public recreation.

RECREATION AND HAPPY LIFE

The word recreation literally means to re-create. Fun and relaxation amid the beauties of nature afford opportunity to rebuild ourselves physically, mentally, and spiritually. In an

During 1959, survey work started on 15 of the 18 Intermountain Region national forests, concentrating on inventories. As of January 1, 1960, some 150,000 acres of existing and potential recreation development sites had been inventoried. About 275,000 acres will be needed for recreation development sites in the year 2000.

Emphasis has now shifted to the inventory and evaluation of hunting, fishing, boating, and other dispersed recreation areas. The region fully expects to meet the program completion date of January 1, 1961.

Minerals and Soils

OBJECTIVES OF MINERALS MANAGEMENT

The objective of the Forest Service is to integrate the discovery and production of mineral resources with the use and conservation of all other forest resources to the fullest extent possible under the Federal and state mining laws. Greater demands are steadily being made upon all of our national resources, and minerals must receive consideration with timber, water, range, recreation, etc. This is the concept of our multiple-use policy.

Minerals are a national forest resource closely related to the others, playing a vital role in our economy. Here a miner examines tungsten ore on Nevada's Snake Range. (Humboldt National Forest)

The raw soil is exposed through accelerated erosion. The region employs soil experts who survey and map soil conditions. This is a basis for proper resource management. (Manti LaSal National Forest)

MINING AND YOU — THE PUBLIC

Prospecting for—and development of—mineral resources within the national forests is encouraged. Mining has played a prominent role in the development and the economy of this region. Most of our national forest lands are open to location of mining claims and to mineral leasing. Recent Federal laws, PL 167 and PL 359, have amended the old basic mining laws to permit improved administration of all forest resources. These new laws are being successfully applied to the region's forest lands.

MINERALS AND SOILS ACHIEVEMENTS

During 1959 approximately 5½ million acres were processed for surface rights determination, bringing the total to about 20 million acres. Mining claimants have retained surface rights on 18,000 acres, or 1% of the estimated total acreage under mineral location.

Mineral examinations were made on 730 claims amounting to 15,000 acres in 1959. A total of 3,230 claims on approximately 65,000 acres has been examined to date.

Soil Surveys were completed on 40,000 acres of the Wasatch National Forest. As an aid to improved management on national forest land these surveys will furnish the basic information on soil productivity, suitability, and hydrological characteristics. About 80,000 acres have been completed to date, and portions of the Uinta, Wasatch, and Payette National Forests have been surveyed.

TO MAKE MULTIPLE-USE WORK

Engineering for Multiple Use. Engineering goes in hand with all multiple use activities. It builds roads, trails, bridges, and facilitates the operation of the multiple-use program for management and protection of the national forest resources.

Use of the tellurometer—a recent innovation—for road controls and mapping, saved $15,345 over conventional methods last year. It was used to establish 197 mapping and control point stations to run controls on 76.5 miles of road and for 1500 square miles of planimetric mapping. Road surveys were completed on 312.9 miles with 86 miles of reconnaissance made by air mapping methods.

Newly constructed in 1959 were 143.5 miles of roads, 36.7 miles of trails, 4 bridges, and 9 heliports. Reconstructed and restored were 212.9 miles of road and 76 miles of trails. Seventy-three temporary bridges were replaced with permanent bridges. Maintenance work included 12,703 miles of road, 27,315 miles of trail, and 36 airfields and heliports. Total expenditures for roads, trails, bridges, and airfields were $3,580,000.

Protecting the Natural Resources. Air attack plays an increasingly important role for the quick suppression of forest fires through speedy delivery of firefighters, equipment, and fire retardants. Smokejumpers stationed at McCall and Idaho City, made 343 jumps on 88 fires. Aircraft delivered 2,387 firefighters and specialists to dangerous fires in remote areas and spent 1,298 hours on reconnaissance to detect fires. They carried 139,854 pounds of paracargo.

Air tankers aided suppression on 44 fires dropping 93,900 gallons of borate and bentonite fire retardant mixtures. Helicopters were used for 520 hours on fire suppression work transporting firefighters, tools, equipment, and standing by for ambulance service.

Forest fires burned 14,111 acres, an increase of 4,291 acres over 1958, but the damage was done by 817 fires as compared with 1,022 fires in 1958—62 percent more area burned by 20 percent fewer fires.

State and Private Forestry Lands protected by Clarke-McNary law funds underwent an exceptional decrease in fires during 1959. Total acres burned on state and private forest lands during the year were 65 percent fewer in the region, and there were 40 percent fewer fires. Man-caused fires decreased by 36 percent.

THE RETURNS OF MULTIPLE-USE

The Returns of Multiple Use. Regional receipts from the sale of national forest timber and forage resources, from land uses, powersite rentals, and trespasses, sent the United States Treasury for F.Y. 1959 were $3,150,008.24. Treasury checks amounting to $784,966.11 were returned to the States of Idaho, Wyoming, Utah, and Nevada for distribution to counties containing national forest land. Each year the states receive twenty-five percent of the net national forest receipts, which are returned by law to the counties in proportion to the acreage of national forest land they contain. This money, a product of multiple-use management, is used at the discretion of the county governments, frequently to help finance school and road programs.

Thus, operating under the principle of multiple use, the national forests have a vital part to play in the local and national economy. Although the public, nationwide, receives revenue from national forest resources far in excess of the Forest Service's normal operating costs, the greatest benefits of national forests lie in their contribution to the national health, security, and welfare through an orderly harvesting of water, forage, and timber crops, and the universal appeal of their wildlife and great recreational opportunities.

PURPOSE OF NATIONAL FORESTS

Act of June 4, 1897 (30 Stat. 35; U.S.C. 475)

No public forest reservation shall be established, except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States.

* * * *

Taken from letter of February 1, 1905 to the Chief of the Forest Service from James Wilson, Secretary of Agriculture:

" . . . The continued prosperity of the agricultural, lumbering, mining and livestock interests is directly dependent upon a permanent and accessible supply of water, wood, and forage, as well as upon the present and future use of these resources under businesslike regulations, enforced with promptness, effectiveness, and common sense. In the management of each reserve, local questions will be decided upon local grounds; the dominant industry will be considered first, but with as little restriction to minor industries as may be possible; sudden changes in industrial conditions will be avoided by gradual adjustment after due notice; and where conflicting interests must be reconciled, the question will always be decided from the standpoint of the greatest good of the greatest number in the long run."

Photographs by: Bluford Muir, Lowell J. Farmer, Melvin A. Coonrod, Arthur Buckingham, A. R. Croft, L. J. Prater, Jack Large, L. E. Horton, Max Rees, Jerry Knopf.

U.S. Department of Agriculture

The Multiple Use Story.
1959 Yearbook

AUTHOR U.S. Department of Agriculture

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